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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,065	06/01/2005	Hubert Cecile Francois Martens	NL 021225	8828
24737 7590 08/15/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER AGUSTIN, PETER VINCENT	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 08/15/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,065	Applicant(s) MARTENS ET AL.	
	Examiner P. Agustin	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s) -

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application is a 371 of PCT/IB03/50019, filed on November 6, 2003.
2. Claims 1-10 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 9 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. (US 6,026,072) in view of Onishi et al. (JP 02078031A).

In regard to claim 1, Taira et al. disclose a recording apparatus (Figure 3) for recording information on a recordable optical record carrier (32) by irradiation of a light beam onto said record carrier for forming marks and lands representing said information along an information recording direction, comprising: a light source (21) for generating a light beam; and optical means (22-30) for irradiating said light beam onto said record carrier, wherein said optical means comprises means (see Figure 8) for influencing said light beam from said light source to said record carrier during recording of information, said influencing means obtaining a light beam having a substantial oval spot profile having a shorter axis in the information recording direction compared to a radial direction orthogonal to the information recording direction (column 40, lines 40-55: "the exposure laser beam 31 applied from the objective lens 30 forms on the master 32 an elliptical beam spot elongated along the radius of the master 32"; see also the shortest pits in Figures 1 & 13).

However, Taira et al. do not disclose: in regard to claim 1, that said influencing means uses astigmatism to obtain a light beam having a substantial oval spot profile (note: Taira et al. disclose using an elliptical aperture to obtain an oval-shaped light beam); and in regard to claim 2, that said means for influencing the light beam introduces astigmatism into the light beam.

Onishi et al. disclose: in regard to claim 1, using astigmatism to obtain a light beam having a substantial oval spot profile (see purpose); and in regard to claim 2, that said means for influencing the light beam introduces astigmatism into the light beam (see purpose). It would have been obvious to one of ordinary skill in the art at the time of invention to have applied the teachings of Onishi et al. to the apparatus of Taira et al., the motivation being to reduce the number of parts (see last line of constitution).

Claims 9 & 10 have limitations similar to those of claim 1; thus, they are rejected on the same basis.

5. Claims 3 & 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. & Onishi et al. as applied to claim 2 above, and further in view of Yasuda et al. (US 6,661,415).

For a description of Taira et al. & Onishi et al., see the rejection *supra*. However, Taira et al. & Onishi et al. do not disclose: in regard to claim 3, that said means for influencing the light beam comprises a liquid crystal cell; and in regard to claim 4, that said liquid crystal cell has a cylindrical shape.

Yasuda et al. disclose: in regard to claim 3, a means for influencing a light beam comprising a liquid crystal cell (Figure 12B); and in regard to claim 4, that said liquid crystal cell has a cylindrical shape (column 9, lines 64-67). It would have been obvious to one of ordinary skill in the art at the time of invention to have applied the teachings of Yasuda et al. to the

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recording apparatus of Taira et al. & Onishi et al., the motivation being to more precisely correct spherical aberration (column 10, lines 27-30).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. & Onishi et al. in view of Cohen (US 4,609,813).

For a description of Taira et al. & Onishi et al., see the rejection *supra*. However, Taira et al. & Onishi et al. do not disclose: in regard to claim 5, that said means for influencing the light beam comprises a cylindrical lens.

Cohen discloses a means for influencing a light beam comprising a cylindrical lens (see abstract). It would have been obvious to one of ordinary skill in the art at the time of invention to have applied the teachings of Cohen to the recording apparatus of Taira et al. & Onishi et al., the motivation being to eliminate focus offset errors caused by beam ellipticity (see abstract).

7. Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. & Onishi et al. as applied to claim 1 above, and further in view of Morimoto (JP 61-248253).

For a description of Taira et al. & Onishi et al., see the rejection *supra*. Furthermore, Taira et al. disclose: in regard to claim 6, that said means for influencing the light beam comprises focus control means (Figure 8: inherent component that controls focus position of light beam 50) for controlling a focus position of focal lines of the light beam.

However, Taira et al. & Onishi et al. do not disclose: in regard to claim 6, that said light beam has an intrinsic astigmatism, such that a defocus is introduced during recording of information; and in regard to claim 7, that said focus control means adds an offset to a focus error signal used for keeping the light beam into focus during recording of information.

Morimoto discloses: in regard to claim 6, a light beam having an intrinsic astigmatism, such that a defocus is introduced during recording of information (see constitution); and in regard to claim 7, that focus control means adding an offset to a focus error signal used for keeping the light beam into focus during recording of information (see constitution). It would have been obvious to one of ordinary skill in the art at the time of invention to have applied the teachings of Morimoto to the device of Taira et al. & Onishi et al., the motivation being to suppress return light inducing noise and to obtain a high CN ratio (see purpose).

Allowable Subject Matter

8. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. In response to applicant's argument on page 8, last paragraph through page 9, first paragraph, that there is no showing in Figure 13 of the light beam spot profile, it is well known in the art that the profile of a light beam spot directly affects the shape of the recorded pits. The shortest, oval-shaped pits in Figure 13 were formed using the elliptical light spot described in column 10, lines 40-55, which indicates "an elliptical beam spot elongated along the radius".

10. In response to applicant's comment on page 9, paragraph 2, regarding the discrepancy between column 10, lines 40-55 (indicating "an elliptical beam spot elongated along the radius") and Figure 8 (showing the opposite, i.e., elongated orthogonal to the radius), Figure 8 is perceived as having a typographical error. The description in column 10, lines 40-55 (indicating

“an elliptical beam spot elongated along the radius”) is relied upon for the correct teaching because it is consistent with the oval-shaped shortest pits shown in Figures 1 & 13.

11. Applicant argues on page 9, paragraph 4, that there is no disclosure or suggestion in Taira et al. that changing the light beam spot profile from round to elliptical is effected through the use of astigmatism. This is found persuasive. Therefore, the rejection under 102(b) has been withdrawn. However, as noted in the new ground of rejection above, this feature is found in the Onishi et al. reference.

12. In response to applicant's argument on page 10, paragraph 3, that there is no disclosure or suggestion that the liquid crystal element of Yasuda et al. is capable of or intended for adding astigmatism, it should be noted that the cylindrical shape of the liquid crystal cell (see column 9, lines 64-67) is understood to add astigmatism to the light beam.

13. In response to applicant's argument on page 10, paragraph 3, that Yasuda et al. does not supply that which is missing from Taira et al., note that the Onishi et al. reference is relied upon for teaching the cited missing feature, as noted in the new ground of rejection above.

14. In response to applicant's argument on page 11, paragraph 1, that Cohen does not supply that which is missing from Taira et al., note that the Onishi et al. reference is relied upon for teaching the cited missing feature, as noted in the new ground of rejection above.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Agustin whose telephone number is 571-272-7567. The examiner can normally be reached on Monday-Thursday 8:30-6:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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/P. Agustin/
Art Unit 2627

/William R. Korzuch/
SPE, Art Unit 2627